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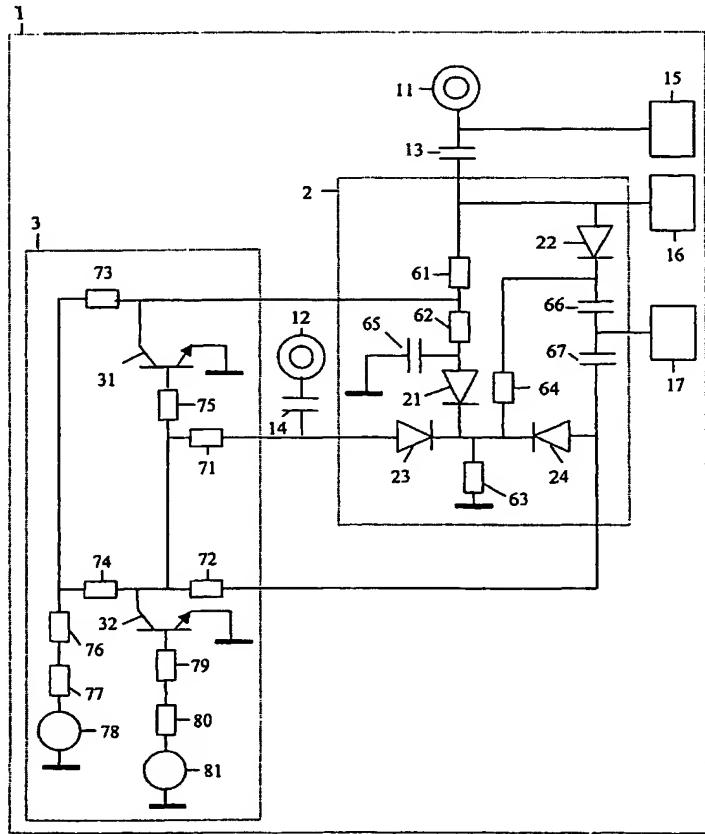
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(54) Title: TELEVISION RECEIVER WITH ISOLATED INPUTS



(57) Abstract: Receivers (1) comprising television and radio inputs (11,12) for receiving television and radio signals and comprising switching circuits (2) with two first switches (21,22) to be activated in a first mode and located parallelly to the television input (11) and with two second switches (23,24) to be activated in a second mode and located anti-serially to the radio input (12), and control circuits (3) for controlling the switching circuits (2) are modified in such a way that strong radio signals can no longer disturb the television signals. Thereby one of the first switches (21) and one of the second switches (23) together isolate the inputs (11,12) from each other, and the control circuit (3) supplies a first control signal to the first switches (21,22) and supplies a second control signal to non-common points of the anti-serial second switches (23,24). This kind of receivers (1) no longer need different switching circuits (2) for shielded radio inputs and unshielded radio inputs. The switches (21,22,23,24) are diodes, and the control circuit (3) comprises transistors (31,32) for controlling the diodes.

**Declaration under Rule 4.17:**

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*TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*

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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

## INTERNATIONAL SEARCH REPORT

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## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

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## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 018, no. 470 (E-1600), 31 August 1994 (1994-08-31) & JP 06 153118 A (SEIKO EPSON CORP), 31 May 1994 (1994-05-31) abstract ----	1,7-10
X	WO 97 25781 A (PHILIPS ELECTRONICS ET AL.) 17 July 1997 (1997-07-17) cited in the application figure 3 ----	1,2,7-10
A	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 05, 31 May 1999 (1999-05-31) & JP 11 055582 A (ALPS ELECTRIC CO LTD), 26 February 1999 (1999-02-26) abstract ----	1,7-10

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Patent document cited in search report		Publication date		Patent family member(s)		Publication date
JP 06153118	A	31-05-1994	JP	3353349 B2		03-12-2002
WO 9725781	A	17-07-1997	SG	46174 A1		20-02-1998
			CN	1183197 A		27-05-1998
			EP	0847630 A2		17-06-1998
			WO	9725781 A2		17-07-1997
			US	6020936 A		01-02-2000
JP 11055582	A	26-02-1999		NONE		